



PROBLEM SUMMARY

Sample Rating Trend

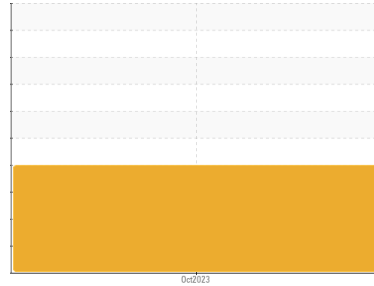
ISO



Machine Id
DUMPER #11

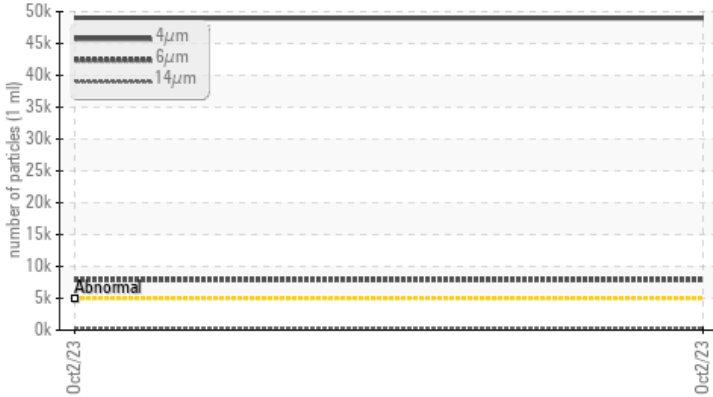
Component
Hydraulic System

Fluid
PETRO CANADA PURITY FG AW HYDRAULIC 32 (3 LTR)



COMPONENT CONDITION SUMMARY

Particle Trend



Viscosity @ 40°C



RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation. The fluid was specified as PETRO CANADA PURITY FG AW HYDRAULIC 32, however, a fluid match indicates that this fluid is ISO 46 Synthetic (PAG) Fire-Resistant Fluid. Please confirm the oil type and grade on your next sample. Please specify the component make and model with your next sample.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	---	---
Particles >4µm	ASTM D7647	>5000	48978	---	---	---
Particles >6µm	ASTM D7647	>1300	7907	---	---	---
Particles >14µm	ASTM D7647	>160	339	---	---	---
Particles >21µm	ASTM D7647	>40	76	---	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	23/20/16	---	---	---
Appearance	scalar	Visual*	NORML	HAZY	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	29.77	43.8	---	---

Customer Id: GRA685CAM

Sample No.: WC0850444

Lab Number: 02586774

Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:

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To change component or sample information:

Gloria Gonzalez +1 (289)291-4643 x4643

gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Alert	---	---	?	The fluid was specified as PETRO CANADA PURITY FG AW HYDRAULIC 32, however, a fluid match indicates that this fluid is ISO 46 Synthetic (PAG) Fire-Resistant Fluid. Please confirm the oil type and grade on your next sample.
Information Required	---	---	?	Please specify the component make and model with your next sample.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

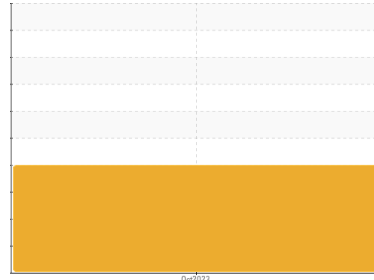
ISO



Machine Id
DUMPER #11

Component
Hydraulic System

Fluid
PETRO CANADA PURITY FG AW HYDRAULIC 32 (3 LTR)



DIAGNOSIS

Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation. The fluid was specified as PETRO CANADA PURITY FG AW HYDRAULIC 32, however, a fluid match indicates that this fluid is ISO 46 Synthetic (PAG) Fire-Resistant Fluid. Please confirm the oil type and grade on your next sample. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

Fluid Condition

Viscosity of sample indicates oil is within ISO 46 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0850444	---	---
Sample Date	Client Info		02 Oct 2023	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	3	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			SEVERE	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	19	---
Chromium	ppm	ASTM D5185(m)	>10	0	---
Nickel	ppm	ASTM D5185(m)	>10	0	---
Titanium	ppm	ASTM D5185(m)		0	---
Silver	ppm	ASTM D5185(m)		<1	---
Aluminum	ppm	ASTM D5185(m)	>10	5	---
Lead	ppm	ASTM D5185(m)	>10	<1	---
Copper	ppm	ASTM D5185(m)	>75	<1	---
Tin	ppm	ASTM D5185(m)	>10	0	---
Antimony	ppm	ASTM D5185(m)		0	---
Vanadium	ppm	ASTM D5185(m)		0	---
Beryllium	ppm	ASTM D5185(m)		0	---
Cadmium	ppm	ASTM D5185(m)		0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<1	---
Barium	ppm	ASTM D5185(m)		<1	---
Molybdenum	ppm	ASTM D5185(m)		0	---
Manganese	ppm	ASTM D5185(m)		0	---
Magnesium	ppm	ASTM D5185(m)		1	---
Calcium	ppm	ASTM D5185(m)		6	---
Phosphorus	ppm	ASTM D5185(m)		199	---
Zinc	ppm	ASTM D5185(m)		7	---
Sulfur	ppm	ASTM D5185(m)		113	---
Lithium	ppm	ASTM D5185(m)		<1	---

CONTAMINANTS

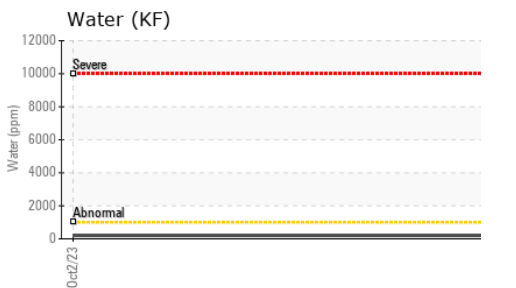
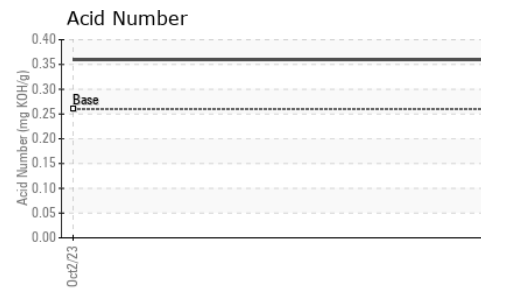
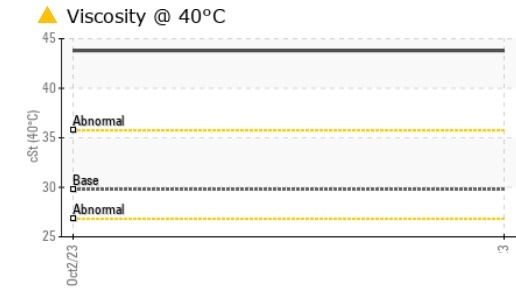
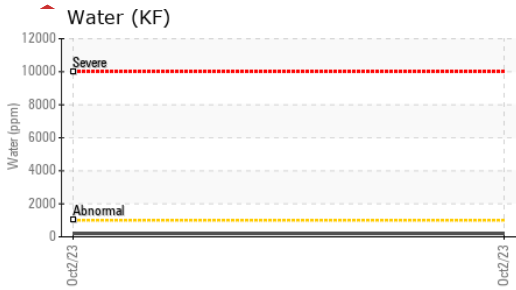
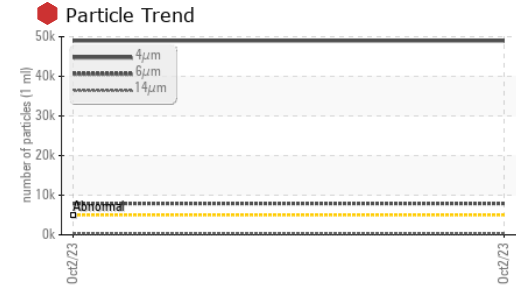
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	4	---
Sodium	ppm	ASTM D5185(m)		2	---
Potassium	ppm	ASTM D5185(m)	>20	2	---
Water	%	ASTM D6304*	>0.1	0.020	---
ppm Water	ppm	ASTM D6304*	>1000	203.4	---

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	48978	---	---
Particles >6µm	ASTM D7647	>1300	7907	---	---
Particles >14µm	ASTM D7647	>160	339	---	---
Particles >21µm	ASTM D7647	>40	76	---	---
Particles >38µm	ASTM D7647	>10	4	---	---
Particles >71µm	ASTM D7647	>3	1	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	23/20/16	---	---



OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.26	0.36	---	---

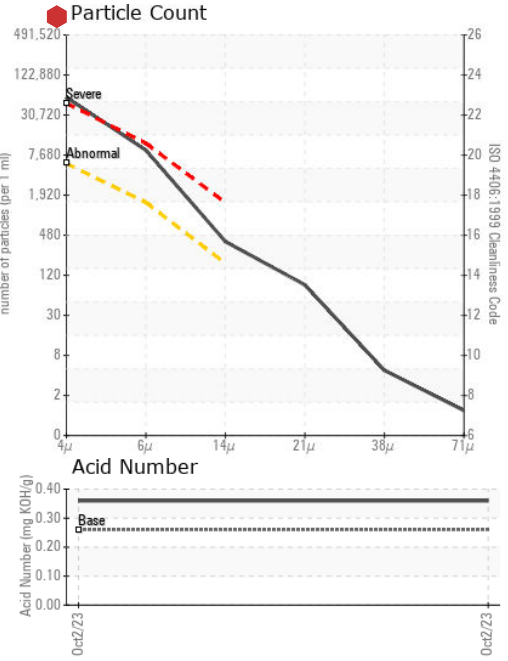
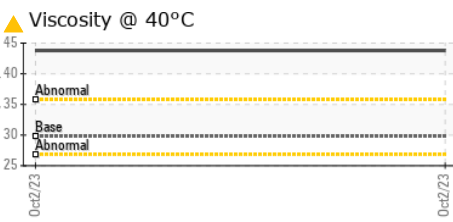
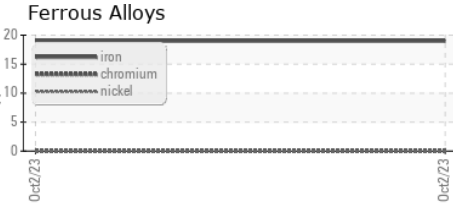
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	HAZY	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	29.77	43.8	---	---

SAMPLE IMAGES

method	limit/base	current	history1	history2
Color			no image	no image
Bottom			no image	no image

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0850444 **Received** : 04 Oct 2023
Lab Number : 02586774 **Diagnosed** : 06 Oct 2023
Unique Number : 5655840 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: KF)

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.